

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of forming a dielectric filler-containing polyimide coating on a metallic material, comprising forming through an electrodeposition coating method with the use of by using a dielectric filler-containing polyimide electrodeposition solution, said solution being a polyimide electrodeposition solution in which containing a dielectric filler has been contained,

wherein the used as a dielectric filler is a globoid dielectric powder having a perovskite structure which has an average particle size, is 0.05 to 1.0 μm in an average particle size- D_{1A} , of 0.05 to 1.0 μm , a weight cumulative particle size, 0.1 to 2.0 μm in a weight cumulative particle size- D_{50} , of 0.1 to 2.0 μm based on a laser diffraction scattering particle size distribution measurements method, and a coagulation degree value, D_{50}/D_{1A} , of 4.5 or less in a coagulation degree value represented by D_{50}/D_{1A} where the weight cumulative particle size D_{50} and the average particle size D_{1A} are obtained from an image analysis.

2. (Currently Amended) A method of forming a dielectric filler-containing polyimide coating on a metallic material, comprising forming through an electrodeposition coating method with the use of by using a dielectric filler-containing polyimide electrodeposition

solution, said solution being a polyimide electrodeposition solution ~~in which~~ containing a dielectric filler ~~has been contained~~,

wherein the method ~~comprising the steps of~~ comprises:

forming on a surface of a copper material a metallic seed layer of either nickel or cobalt; and

forming on a ~~surface of~~ ~~said copper material~~ a the metallic seed layer an electrodeposition coating comprising a dielectric filler-containing polyimide coating ~~through an electrodeposition coating method with the use of~~ formed from a dielectric filler-containing polyimide electrodeposition solution, said solution containing a dielectric powder as a dielectric filler, said dielectric powder having a perovskite structure which has an average particle size, is 0.05 to 1.0 μm in an average particle size D_{1A} , of 0.05 to 1.0 μm , a weight cumulative particle size, 0.1 to 2.0 μm in a weight cumulative particle size- D_{50} , of 0.1 to 2.0 μm based on a laser diffraction scattering particle size distribution measurements ~~method~~, and a coagulation degree value, D_{50}/D_{1A} , of 4.5 or less in a coagulation-degree value represented by D_{50}/D_{1A} where the weight cumulative particle size D_{50} and the average particle size D_{1A} are obtained from an image analysis.

3. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 1, wherein a the content of the dielectric filler in the dielectric filler-containing polyimide electrodeposition solution is 50g/L to 350g/L.

4. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 1, wherein the dielectric filler is selected from the group consisting of either calcined barium titanate or and uncalcined barium titanate.

5. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 1, wherein the dielectric filler is a barium titanate having a crystal structure selected from the group consisting of either only a cubic crystal structure only or and a crystal structure of a mixed state between a cubic crystal structure and a tetragonal crystal structure.

6. (Currently Amended) A method of manufacturing a copper clad laminate for forming a capacitor layer for use in a printed wiring board, said copper clad laminate having a layered structure consisting of a first copper foil, a dielectric filler-containing polyimide dielectric layer, and a second copper foil, comprising the steps of:

employing providing a first copper foil having a dielectric filler-containing polyimide coating and a second copper foil having a polyimide thin film being a polyimide thin film formed on one side of said second copper foil, said dielectric filler-containing polyimide coating having a dielectric filler-containing polyimide coating formed on a surface of said first copper foil through an electrodeposition coating method with the use of by using a dielectric filler-containing polyimide electrodeposition solution, said dielectric filler-containing polyimide electrodeposition solution being prepared through mixing a polyimide electrodeposition solution and a dielectric powder, as a

dielectric filler, wherein the dielectric powder has a having perovskite structure which having an average particle size, is 0.05 to 1.0 μm in an average particle size- D_{1A} , of 0.05 to 1.0 μm , a weight cumulative particle size, 0.1 to 2.0 μm in a weight cumulative particle size- D_{50} , of 0.1 to 2.0 μm based on a laser diffraction scattering particle size distribution measurements method, and a coagulation degree value, D_{50}/D_{1A} , of 4.5 or less in a coagulation degree value represented by D_{50}/D_{1A} where the weight cumulative particle size D_{50} and the average particle size D_{1A} are obtained from an image analysis;
and

laminating a surface of the dielectric filler-containing polyimide coating of said first copper foil having a dielectric filler-containing polyimide coating and a surface of the polyimide thin film of said second copper foil having a polyimide thin film in a manner that both the surfaces come into contact with each other.

7. (Currently Amended) A method of manufacturing a copper clad laminate for forming a capacitor layer for use in a printed wiring board, said copper clad laminate having a layered structure consisting of a first copper foil, a dielectric filler-containing polyimide dielectric layer, and a second copper foil, comprising ~~the steps of~~:

forming a metallic seed layer of either nickel or cobalt on a surface of a first copper foil;

employing providing a first copper foil having a dielectric filler-containing polyimide coating and a second copper foil having a polyimide thin film being a polyimide thin film formed on one side of said second copper foil, said dielectric filler-containing polyimide coating having a dielectric filler-containing polyimide coating

formed on a surface of said metal seed layer ~~through an~~ by electrodepositing a ~~electrodeposition coating method with the use of~~ from a dielectric filler-containing polyimide electrodeposition solution, said dielectric filler-containing polyimide electrodeposition solution being prepared ~~through~~ by mixing a polyimide electrodeposition solution and a dielectric powder, ~~as a dielectric filler, wherein the dielectric powder has a~~ having perovskite structure ~~which with an average particle size,~~ is 0.05 to 1.0 μm in an average particle size D_{1A} , of 0.05 to 1.0 μm , a weight cumulative particle size, 0.1 to 2.0 μm in a weight cumulative particle size D_{50} , of 0.1 to 2.0 μm based on a laser diffraction scattering particle size distribution measurements ~~method~~, and a coagulation degree value, D_{50}/D_{1A} , of 4.5 or less in a coagulation degree value represented by D_{50}/D_{1A} where the weight cumulative particle size D_{50} and the average particle size D_{1A} are obtained from an image analysis; and

laminating a surface of the dielectric filler-containing polyimide coating of said first copper foil ~~having a dielectric filler-containing polyimide coating and a surface of the polyimide thin film of said~~ second copper foil ~~having a polyimide thin film~~ in a manner that both the surfaces come into contact with each other.

8. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 6, wherein a the content of the dielectric filler in the dielectric filler-containing polyimide electrodeposition solution is 50g/L to 350g/L.

9. (Currently Amended) The A method of forming a copper clad laminate for forming a capacitor layer for use in a printed wiring board according to claim 6, wherein the dielectric filler is selected from the group consisting of either calcined barium titanate or and uncalcined barium titanate.

10. (Currently Amended) The A method of forming a dielectric filler containing polyimide coating on a metallic material according to claim 6, wherein the dielectric filler is a barium titanate having a crystal structure selected from the group consisting of either only a cubic crystal structure only or and a crystal structure of a mixed state between a cubic crystal structure and a tetragonal crystal structure.

11. (Currently Amended) A copper clad laminate for forming a capacitor layer for use in a printed wiring board as obtained through the methods of forming a copper clad laminate for forming a capacitor layer for use in a printed wiring board wherein the laminate is made according to the method of claim 6.

12. (Currently Amended) The A method of forming a dielectric filler containing polyimide coating on a metallic material according to claim 2, wherein a the content of the dielectric filler in the dielectric filler-containing polyimide electrodeposition solution is 50g/L to 350g/L.

13. (Currently Amended) The A method of forming a dielectric filler containing polyimide coating on a metallic material according to claim 2, wherein the dielectric filler

is selected from the group consisting of either calcined barium titanate or and uncalcined barium titanate.

14. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 2, wherein the dielectric filler is a barium titanate having a crystal structure selected from the group consisting of either only a cubic crystal structure only or and a crystal structure of a mixed state between a cubic crystal structure and a tetragonal crystal structure.

15. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 7, wherein a the content of the dielectric filler in the dielectric filler-containing polyimide electrodeposition solution is 50g/L to 350g/L.

16. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 7, wherein the dielectric filler is selected from the group consisting of either calcined barium titanate or and uncalcined barium titanate.

17. (Currently Amended) The A method of forming a dielectric filler-containing polyimide coating on a metallic material according to claim 7, wherein the dielectric filler is a barium titanate having a crystal structure selected from the group consisting of

either only a cubic crystal structure only or and a crystal structure of a mixed state between a cubic crystal structure and a tetragonal crystal structure.

18. (Currently Amended) A copper clad laminate for forming a capacitor layer for use in a printed wiring board ~~as obtained through the methods of forming a copper clad laminate for forming a capacitor layer for use in a printed wiring board wherein the laminate is produced~~ according to the method of claim 7.